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Remarks

Applicants note with appreciation the examiner's careful review of the pending application. In response to the various grounds of rejection, the pending independent claims have been amended and some additional claims have been cancelled. Applicants submit that these amendments both define over the art of record as applied to date and also further clarify the invention in comparison to the prior art.

Claims 1, 6, 7, and 38 have been amended and claims 9-12, 16, and 37 have been cancelled. In particular, the previous use of the word "liners" has been changed to "layers" in all of the respective claims as Applicants believe that such is more consistent with the specification, particularly at Paragraphs 0032-0034.

From a more detailed perspective, the various grounds of rejection are addressed in turn.

The Double Patenting Rejection

In response to the double patenting rejection, Applicants have submitted a terminal disclaimer concurrently herewith and respectfully submit that it properly addresses this grounds of rejection. Applicants accordingly respectfully request that this grounds of rejection be removed as against the now-pending claims.

The § 102 Rejections Based on Giraud 5,556,673

The § 102 rejection based on Giraud must be removed because Giraud fails to disclose the pressure-resistant, structural polymeric layer that is recited in each of the amended independent claims. This layer was previously referred to as the "polymeric inner liner," but Applicants submit that the present recitations help clarify over Giraud. The specification as filed at Paragraph 0033 provides the relevant supporting description for these adjectives, and thus they do not represent new matter.

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Absent all of the recited elements, Giraud cannot be applied as a § 102 reference and Applicants respectfully again request that it be removed as a § 102 reference against the pending claims.

The § 102 Rejections Based on Bennett 5,427,741

In raising this grounds of rejection, the examiner has improperly used the prior art to construe the meaning of an adjective that has a dictionary definition that helps distinguish the claimed invention over the prior art. Specifically, the examiner has stated that the definition of the word "contiguous" is "yarns running parallel to each other " (Paragraph 5 of Paper No. 7, in the sentence bridging pages 5 and 6).

The definitions of "parallel" and "contiguous" are not equivalent, and are not even synonyms of one another. Merriam-Webster's online dictionary (www.merriam-webster.com) defines "contiguous as

- 1 : being in actual contact : touching along a boundary or at a point
- 2 of angles : ADJACENT
- 3 : next or near in time or sequence
- 4 : touching or connected throughout in an unbroken sequence
<contiguous row houses>

and its synonyms as

Synonyms ADJACENT 3, abutting, adjoining, approximal, bordering, conterminous, juxtaposed, touching.

In contrast, the same source defines "parallel" as (in part)

- 1 a : extending in the same direction, everywhere equidistant, and not meeting <parallel rows of trees> b : everywhere equally distant <concentric spheres are parallel>

and its synonyms as

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Synonyms LIKE, agnate, akin, alike, analogous, comparable,
consonant, corresponding, similar, uniform

Accordingly, although "parallel" items and "contiguous" ones are not mutually exclusive, the terms do not have the same definition, and the examiner is not entitled to use Figure 4 of Bennett to develop an improper definition of "contiguous." Absent the presence of contiguous yarns, Bennett lacks all of the elements now recited in the amended claims and must be removed as a § 102 reference.

The § 103 Rejection Over Bennett

As a final grounds of rejection, the examiner has applied the Bennett '741 patent as rendering the claims obvious. Applicants respectfully submit that Bennett fails to disclose or suggest the contiguous wound yarn layer (as opposed to composite layers that include yarns) as forming an appropriate structural element in a microwave pressure vessel system. Indeed, the claimed invention is an improvement over systems such as Bennett's and Applicants have acknowledged the existence and use of composite materials such as Bennett's ever since the original parent application was filed (e.g. Paragraphs 0005-0007 of the specification as filed).

As set forth in those paragraphs, although composite vessels (or vessel elements) such as Bennett's offer protection against high-pressure catastrophic failure, they also tend to allow a certain amount of permanent distortion under high pressure. Once so distorted, the composite vessels or components are either useful only for low pressure reactions or are completely ruined for any purpose. As set forth in Paragraph 0032 of the pending specification, winding the yarns circumferentially provides an improved structural geometry that resists distortion under pressure better than do earlier versions of composite vessels such as Bennett's.

As set forth at its Column 2 lines 27-37, Bennett '741 teaches that the composite is best prepared by heating a layer of thermoplastic polymer adjacent the textile yarn or braids in order to allow the thermoplastic polymer to fill the voids between and among the yarns or

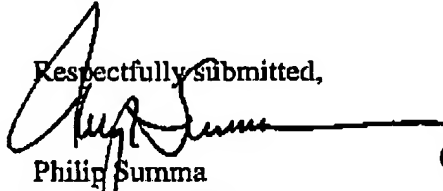
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braids. Column 6 lines 31-39 also refer to the polymer as melting into the "interstices" (line 38) between the yarns or fibers. Accordingly, from a § 103 standpoint, Bennett should be taken as teaching away from the claimed invention.

Being an early example of a composite vessel, Bennett fails to foresee or predict the distortion that has been observed in practice under higher pressures. Accordingly, having failed to foresee the problem addressed by Applicant's improvements, Bennett cannot be fairly taken as disclosing the solution.

As a final point with respect to § 103, Applicants respectfully point out that the Bennett patent is, and always has been, commonly assigned with the present invention. Accordingly, as persons of skill in this art, Applicants respectfully submit that their improvements as recited in the claimed invention are nonobvious over previous work in this art.

Respectfully submitted,


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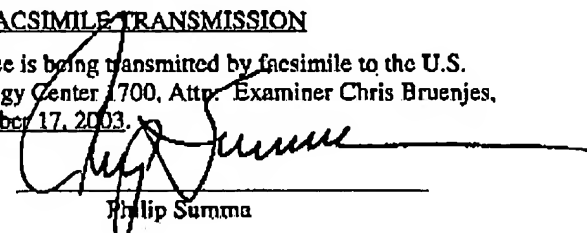
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